

Appendix A includes versions of the replacement paragraphs with markings to show the changes made relative to the former paragraphs.

On page 4, please replace the paragraph at lines 28-34 with the following paragraph:

Fl Figure 1 depicts the nucleotide sequence of EST R35464 (SEQ ID NO:12) and the translation of this DNA sequence (labeled "ORF") which yielded an open reading frame with some sequence similarity to aprotinin. Amino acids 1-110 of the translation correspond to SEQ ID NO:13; amino acids 112-130 correspond to SEQ ID NO:72. The translation product contains 5 of the 6 cysteines in the correct spacing that is characteristic for Kunitz-like inhibitor domains (indicated in bold). The position normally occupied by the remaining cysteine (at codon 38) contained instead a phenylalanine (indicated by an asterisk).

Please replace the paragraph at page 4, line 35 to page 5, line 4 with the following paragraph:

p2 Figure 2 depicts the nucleotide sequence of EST R74593 (SEQ ID NO:14), and the translation of this DNA sequence (labeled "ORF") which yielded an open reading frame with homology to the Kunitz class of serine protease inhibitor domains. Amino acids 3-22 of the translation correspond to SEQ ID NO:15; amino acids 24-131 correspond to SEQ ID NO:73; amino acids 136-166 correspond to SEQ ID NO:74. The translation product contained 6 cysteines in the correct spacing that is characteristic for Kunitz-like inhibitor domains (indicated in bold). However, this reading frame sequence includes stop codons at codon 3 and 23.

On page 5, please replace the paragraph at lines 5-16 with the following paragraph:

f3
Figure 3 depicts a deduced nucleic acid sequence of human placental bikunin (SEQ ID NO:9) labeled "consensus" and matched with the translated protein amino acid sequence labeled "translated". Amino acids -18-179 of the translation correspond to SEQ ID NO:10; amino acids 184-214 correspond to SEQ ID NO:76. Also as comparison are shown the nucleic acid sequence for ESTs H94519 (SEQ ID NO:16), N39798 (SEQ ID NO:17), R74593 (corrected by the insertion of G at position 114) (SEQ ID NO:75) and R35464 (SEQ ID NO:12). The underlined nucleotides in the consensus sequence correspond to the site of PCR primers described in the Examples. Underlined amino acids in the translated consensus sequence are residues whose identity have been confirmed by amino acid sequencing of purified native human placental bikunin. Nucleotide and amino acid code are standard single letter code, "N" in the nucleic acid code indicates an unassigned nucleic acid, and "*" indicates a stop codon in the amino acid sequence.

On page ⁵6, please replace the paragraph at lines 27-34 with the following paragraph:

FA
Figure 4C depicts the corresponding alignment of the oligonucleotide sequences of each of the overlapping ESTs shown schematically in Figure 4B. The upper sequence (SEQ ID NO:51) labeled bikunin represents the consensus oligonucleotide sequence derived from the overlapping nucleotides at each position. The numbers refer to base-pair position within the EST map. The oligonucleotides in EST R74593 (SEQ ID NO:89) that are bold underlined (at map positions 994 and 1005) are base insertions observed in R74593 that were consistently absent in each of the other overlapping ESTs. In Figure 4C, N40851 corresponds to SEQ ID NO:77; N39876 corresponds to SEQ ID NO:78; R87894 corresponds to SEQ ID NO:79; H16866 corresponds to SEQ ID NO:80; R34808 corresponds to SEQ ID NO:81; T66058 corresponds to

FH
Cont'd

SEQ ID NO:82; N57450 corresponds to SEQ ID NO:83; N57374 corresponds to SEQ ID NO:84; R35464 corresponds to SEQ ID NO:85; H94519 corresponds to SEQ ID NO:86; N39798 corresponds to SEQ ID NO:87; H87300 corresponds to SEQ ID NO:88; R74593 corresponds to SEQ ID NO:89; R31730 corresponds to SEQ ID NO:90; R34701 corresponds to SEQ ID NO:91; H02982 corresponds to SEQ ID NO:92; R32676 corresponds to SEQ ID NO:93; T47439 corresponds to SEQ ID NO:94; R73968 corresponds to SEQ ID NO:95; H39840 corresponds to SEQ ID NO:96; H95233 corresponds to SEQ ID NO:97; H39841 corresponds to SEQ ID NO:98; N30199 corresponds to SEQ ID NO:99; T52966 corresponds to SEQ ID NO:100; N29508 corresponds to SEQ ID NO:101; N26919 corresponds to SEQ ID NO:102; N26910 corresponds to SEQ ID NO:103; H16757 corresponds to SEQ ID NO:104; and N27732 corresponds to SEQ ID NO:105.